A Tier 1 risk assessment requires the following steps:

Step 1: Compilation of data and identification of data gaps,
Step 2: Development of exposure model (EM),
Step 3: Collection of data to fill data gaps,
Step 4: Calculation of exposure pathway-specific representative concentrations of chemicals of concern (COCs) in affected media,
Step 5: Comparison of Tier 1 risk-based target levels (RBTLs) with site-specific representative concentrations,
Step 6: Recommendations for the next course of action, and
Step 7: Documentation of Tier 1 risk assessment.

Details of each of these steps are presented below.

7.1 STEP 1: COMPILATION OF DATA AND IDENTIFICATION OF DATA GAPS

The objective of this step is to compile available relevant data, evaluate the data, and identify any data gaps. This is best accomplished by collecting all available data for the site and comparing the data with the data needs discussed in Section 5.0. It is recommended that this step and Step 2 (develop EM) be completed simultaneously since the development of an EM may also help in the identification of data gaps.

Examples of Tier 1 data gaps include:

- Lack of an updated/current land use map,
- Lack of soil or groundwater COC concentrations representative of current conditions (e.g. soil or groundwater COC data might be too old or not representative of recent releases),
- Lack of a water well search,
- Contamination on the site insufficiently delineated, and
- Lack of soil and groundwater data for certain COCs.

Once all the data gaps have been identified, the evaluator may have to develop a work plan that includes a (i) scope of work to fill in the data gaps, (ii) schedule, and (iii) cost proposal. If additional soil or groundwater data is necessary, MDNR may suggest that soil geotechnical parameters typically required for a Tier 2 risk assessment also be collected, as doing so as part of soil or groundwater investigations is more cost-effective. To ensure that all data gaps have been identified, the evaluator should refer to Section 5.0 of this document. Note that a Tier 1 risk assessment can be performed with minimal data, hence additional data may not be necessary at many of the sites that have been assessed and characterized prior to the effective date of this guidance.

Tier 1 risk assessment data must be compiled in MRBCA Report Forms Nos. Tier 1-2 to Tier 1-10.

7.2 STEP 2: DEVELOPMENT OF EXPOSURE MODEL

This step is necessary to identify exposure pathways at a site that are currently complete or that are reasonably likely to become complete in the future. The presence of exposure pathways and the types of pathways that might be present are dependent on current and anticipated future use of the site. If contamination has migrated off-site, use of the affected off-site property or properties must be considered independent of the use of the site on which the contamination originated. Pathways should be determined through consideration of the locations of the point and area of release in soil and the extent of contamination in groundwater relative to the exposure pathways identified at Section 6.1 that might exist on-site and off-site. Clearly, prior to determining exposure pathways, sufficient site assessment will have had to be conducted such that the horizontal and vertical extents of COCs in soil and groundwater have been determined. Otherwise, pathways that are of concern might be excluded or pathways not of concern (due to their location relative to the location of soil and/or groundwater contamination) might be erroneously included in the evaluation.

This step includes the development of an EM to identify (i) all complete routes of exposure for current and reasonably anticipated future land use, (ii) the exposure domain for each complete route of exposure, and (iii) the point of exposure for each route of exposure (refer to Section 6.1). To facilitate development of the EM, MDNR has developed standardized report forms. These report forms list all routes of exposure typically considered at a UST/AST site. On these forms, the evaluator is required to (i) indicate whether the pathway is complete or not, (ii) explain the rationale for the choice, and (iii) designate borings that will be used to estimate representative chemical concentrations in affected media for each pathway (refer to Appendix G).

The EM must be documented in MRBCA Report Form No. Tier 1-11(1) through (6).

7.3 STEP 3: COLLECTION OF DATA TO FILL DATA GAPS

This step will be necessary only if data gaps are identified in Step 1. Depending on the specifics, this may require approval of a work plan by MDNR. Upon completion of this step in a timely manner and with appropriate documentation of the fieldwork, the evaluator shall proceed with Step 4 below.

7.4 STEP 4: CALCULATION OF EXPOSURE PATHWAY-SPECIFIC REPRESENTATIVE CONCENTRATIONS

Using the data compiled in Steps 1 and 3, the evaluator shall calculate representative chemical concentrations for affected soil and groundwater, as discussed in Section 6.5 and Appendix E. The need to calculate representative concentrations may be avoided by initially comparing the historical maximum media-specific concentrations for each

pathway with the Tier 1 RBTLs (Step 5). If the historical maximum concentrations do not exceed the target levels, calculation of the representative concentrations is not necessary.

Depending on site conditions (and as discussed in Section 6.5), multiple representative concentrations may have to be developed for a site. For example, at a site where a groundwater plume exists below an onsite commercial building and has migrated off-site under a residential building, representative groundwater concentrations beneath the on-site building would be different from those beneath the off-site building (in this example, the occupants of the buildings are the receptors and the volatilization from groundwater to indoor air is the exposure pathway).

Calculation of representative concentrations must be documented in MRBCA Report Forms Nos. Tier 1-12(1) through (10) and the calculations included in an attachment.

7.5 STEP 5: COMPARISON OF TIER 1 RBTLs WITH SITE-SPECIFIC REPRESENTATIVE CONCENTRATIONS

In this step, the Tier 1 RBTLs for the complete routes of exposure identified in Step 2 are compared with the representative COC concentrations calculated in Step 4 (note that, for surficial soil in a residential setting, the maximum COC concentrations are used for comparison). The Tier 1 target levels are presented in Tables 7-1(a) to 7-1(f). Note that Tables 7-1(d) to 7-1(f) present soil concentrations protective of groundwater where the domestic use of groundwater pathway is complete. Regarding the use of these tables, note the following:

- Use Table 7-1(d) when the vertical distance from the bottom of the soil source to groundwater is less than 20 feet.

- Use Table 7-1(e) when the vertical distance from the bottom of the soil source to groundwater is between 20 and 50 feet.

- Use Table 7-1(f) when the vertical distance from the bottom of the soil source to groundwater is greater than 50 feet.

In each of the above cases, the user must select the nearest distance where a domestic water use well is or could be located under current and reasonably anticipated future conditions. Depending on this distance and the distance to groundwater, as discussed above, soil concentrations protective of groundwater will be selected from Table 7-1(d), (e), or (f).

As mentioned in Step 4, the evaluator is encouraged to initially compare maximum COC concentrations to the RBTLs. If the maximum concentrations do not exceed the target levels, calculating representative concentrations is not necessary. Based on the results of this step, the evaluator shall recommend the path forward as discussed in Step 6.

Comparison of representative concentrations with the RBTLs must be documented in MRBCA Report Form No. Tier 1-12(1) through (10).

7.6 STEP 6: RECOMMENDATIONS FOR THE NEXT COURSE OF ACTION

Depending on the result of the comparison, one of the following alternatives is available.

Alternative 1: If the analysis at Step 2 indicates that current and potential future exposure pathways are not complete (both on and off-site) and the following four conditions are met, the entity performing the evaluation may request that MDNR issue a NFA letter for the release.

Condition 1: Confirmation that the plume is stable or decreasing (see definition at Section 5.9.3). If this condition is not satisfied, the entity conducting the cleanup shall recommend that compliance monitoring be continued until the plume is demonstrably stable and/or take actions to hasten plume stability.

Condition 2: The maximum concentration of any COC does not exceed 10 times the representative concentration of that COC, for any exposure pathway. This condition should be documented and MDNR will determine what actions, if any, will be necessary to address the situation.

Condition 3: Assurance that the land use assumptions used in the MRBCA evaluation are not violated in the future. The need for such assurance may require that an activity and use limitation (AUL) apply to the site prior to issuance of a no further action (NFA) letter.

Condition 4: Absence of ecological concerns at the site. If this condition is not met, the entity conducting the cleanup shall provide recommendations to MDNR to address the condition.

Alternative 2: If representative COC concentrations (and/or maximum COC concentrations for surficial soil in a residential setting) applicable to each complete pathway do not exceed their respective Tier 1 RBTLs and conditions 1 through 4 above as well as condition 5 below are met, the evaluator may request that MDNR issue a NFA letter for the release.

Condition 5: If current site use is non-residential and representative concentrations exceed the Tier 1 RBTLs for residential use but do not exceed the Tier 1 RBTLs for non-residential use, future non-residential use is assured through adequate documentation or an AUL (refer to Section 11).

Alternative 3: If one or more representative concentrations exceed the RBTLs, the evaluator shall determine whether to conduct corrective action to achieve the Tier 1 RBTLs or perform a Tier 2 risk assessment and any corrective action that might be needed to meet the Tier 2 site-specific target levels (SSTLs). Based on this determination, the evaluator shall recommend one of the following: (i) remediation to Tier 1 RBTLs, or (ii) performance of a Tier 2 risk assessment. Nationwide experience suggests that, unless the corrective action is very limited, the cost of a Tier 2 risk assessment and subsequent remediation to Tier 2 SSTLs is typically less than the cost of remediation to Tier 1 RBTLs.

Recommendations based on the Tier 1 risk assessment must be documented in the narrative portion of the Tier 1 Risk Assessment Report.

7.7 STEP 7: DOCUMENTATION OF TIER 1 RISK ASSESSMENT

To facilitate documentation and review of the Tier 1 risk assessment, MDNR has developed standardized report forms (refer Appendix G). In addition, the contents of the various MRBCA reports are discussed in Section 12 of this document. The Tier 1 risk assessment shall be appropriately documented and submitted to MDNR. If a Tier 2 risk assessment is conducted, both the Tier 1 and Tier 2 risk assessments may be submitted simultaneously. Refer to Section 2.5 and Section 12 for further information regarding reporting.

Tier 1 risk assessment must be documented in MRBCA Report Forms No. Tier 1-1 through Tier 1-15, as appropriate, and in narrative as discussed in Section 12.

Table 7-1(a)
Tier 1 Risk Based Target Levels for Residential Land Use for Soil Type 1 (Sandy Soil)

Chemicals of Concern	Air	Surficial Soil	Subsurface Soil	Groundwater		
	Indoor	Ingestion, Inhalation (Vapor Emissions and Particulates), and Dermal Contact	Indoor Inhalation of Vapor Emissions	Indoor Inhalation of Vapor Emissions	Dermal Contact	Domestic Use
	[mg/m^3-air]	[mg/kg]	[mg/kg]	[mg/L]	[mg/L]	[mg/L]
Benzene	3.09E-03	8.55E+00	2.34E-01	6.21E-01	4.61E-01	5.00E-03 m
Toluene	2.39E-01	1.04E+03 *	4.07E+01	4.15E+01	2.22E+01	1.00E+00 m
Ethylbenzene	5.97E-01	8.48E+02 *	1.90E+02 *	1.02E+02 #	6.06E+00 #	7.00E-01 m
Xylenes (mixed)	4.18E-01	2.76E+03 *	1.70E+02 *	8.14E+01 #	1.11E+02 #	1.00E+01 m
Ethylene Dibromide (EDB)	1.17E-04	1.92E-02	2.35E-01	6.29E-01	1.23E-04	5.00E-05 m
Ethylene Dichloride (EDC)	9.86E-04	7.47E+00	1.35E-01	8.97E-01	2.54E-01	1.56E-03
Methyl-tert-butyl-ether(MTBE)	2.56E-01	1.88E+02	5.61E+01	4.70E+02	7.46E+00	1.46E-01
Acenaphthene	1.25E-01	6.27E+02 *	6.70E+04 *	1.61E+03 #	1.15E+00	1.98E-01
Anthracene	6.27E-01	3.14E+03 *	3.90E+05 *	2.29E+03 #	5.83E+00 #	9.89E-01 #
Benzo(a)anthracene	2.89E-04	1.84E+00	3.27E+05 *	1.39E+02 #	4.70E-04	9.21E-04
Benzo(a)pyrene	1.47E-05	1.90E-01	1.44E+05 *	2.39E+01 #	2.52E-05	2.00E-04 m
Benzo(b)fluoranthene	2.89E-04	1.84E+00	6.98E+04 *	9.62E+00 #	2.52E-04	9.21E-04
Benzo(k)fluoranthene	2.89E-03	1.84E+01 *	8.59E+07 *	1.18E+04 #	2.52E-03 #	9.21E-03 #
Chrysene	2.89E-02	1.83E+02 *	2.41E+06 *	1.03E+03 #	4.70E-02 #	9.21E-02 #
Dibenzo(a,h)anthracene	2.89E-05	1.84E-01	2.93E+07 *	1.30E+03 #	1.39E-05	9.21E-05
Fluoranthene	8.36E-02	1.19E+03 *	9.02E+06 *	1.42E+04 #	4.17E-01 #	6.26E-01 #
Fluorene	8.36E-02	4.22E+02 *	2.46E+05 *	3.01E+03 #	1.13E+00	1.32E-01
Napthalene	1.80E-03	7.90E+01 *	6.23E+01 *	5.40E+00 #	1.32E+00 #	3.55E-03
Pyrene	6.27E-02	7.51E+02 *	1.07E+07 *	1.73E+04 #	3.13E-01 #	4.69E-01 #
TPH-GRO	1.17E+01	2.90E+04 *	3.83E+02	2.07E+01	1.35E+02 #	1.80E+01
TPH-DRO	1.43E+00	5.60E+04 *	4.14E+03 *	1.17E+02 #	5.45E+00	3.43E+01 #
TPH-ORO	NA	5.08E+04 *	NA	NA	6.64E-01 #	3.18E+01 #
>C6 - C8 (Aliphatics)	1.10E+01	2.65E+04 *	2.51E+02 *	9.86E+00 #	1.31E+02 #	1.72E+01 #
>C8 - C10 (Aliphatics)	5.97E-01	1.65E+03 *	5.16E+01	3.35E-01	9.84E-01 #	6.77E-01 #
>C10 - C12 (Aliphatics)	5.97E-01	1.63E+03 *	2.56E+02 *	2.24E-01 #	3.69E-01 #	6.77E-01 #
>C12 - C16 (Aliphatics)	5.97E-01	2.00E+03 *	1.17E+03 *	5.16E-02 #	8.57E-02 #	1.56E+00 #
>C16 - C21 (Aliphatics)	NA	5.02E+04 *	NA	NA	1.74E-01 #	3.13E+01 #
>C21 - C35 (Aliphatics)	NA	5.02E+04 *	NA	NA	1.74E-01 #	3.13E+01 #
>C8 - C10 (Aromatics)	1.19E-01	8.48E+02 *	8.05E+01	1.05E+01	2.49E+00	1.73E-01
>C10 - C12 (Aromatics)	1.19E-01	7.32E+02 *	4.34E+02 *	3.35E+01 #	2.09E+00	1.73E-01
>C12 - C16 (Aromatics)	1.19E-01	8.64E+02 *	2.28E+03 *	8.30E+01 #	1.72E+00	1.73E-01
>C16 - C21 (Aromatics)	NA	6.25E+02 *	NA	NA	1.01E+00 #	4.69E-01
>C21 - C35 (Aromatics)	NA	6.25E+02 *	NA	NA	4.90E-01 #	4.69E-01 #
Tertiary-amyl-methyl-ether (TAME)	NA	8.34E+02	NA	NA	NA	6.26E-01
Tertiary-butyl- alcohol (TBA)	1.80E-01	1.01E+03	1.87E+02	2.41E+03	NA	2.86E-01
Ethyl-tert-butyl-ether (ETBE)	1.80E-01	2.03E+01	2.58E+01	9.90E+01	NA	1.50E-02
Diisopropyl ether (DIPE)	5.97E-01	1.17E+03	8.57E+01	2.13E+02	NA	6.77E-01
Ethanol	1.13E+00	3.24E+04 *	7.22E+03	1.21E+05	NA	5.16E+02
Methanol	1.55E-01	4.31E+03	1.98E+03	1.87E+04	NA	7.82E+00
Arsenic	5.96E-06	4.35E+00	NA	NA	NA	1.00E-02 m
Barium	2.92E-04	4.50E+03	NA	NA	NA	2.00E+00 m
Cadmium	1.42E-05	3.23E+01	NA	NA	NA	5.00E-03 m
Chromium (III)	5.97E-05	6.65E+04	NA	NA	NA	2.35E+01
Chromium (VI)	3.09E-07	9.36E+02	NA	NA	NA	4.69E-02
Lead	NA	2.60E+02	2.60E+02	NA	NA	1.50E-02
Selenium	NA	1.34E+02	NA	NA	NA	7.82E-02

Notes:
NA: Not Applicable
*: Calculated Target Level exceeded effective saturated soil concentration (if available) or saturated soil concentration. Calculated value is shown.
#: Calculated Target Level exceeded effective water solubility(if available) or solubility. Calculated value is shown.
m: The target level is MCL.
Soil concentrations are presented on a dry weight basis.
RBTL: Risk Based Target Level

Table 7-1(b)
Tier 1 Risk Based Target Levels for Non-Residential Land Use

Chemicals of Concern	Air	Surficial Soil	Subsurface Soil	Groundwater	
	Indoor	Ingestion, Inhalation (Vapor Emissions and Particulates), and Dermal Contact	Indoor Inhalation of Vapor Emissions	Dermal Contact	Indoor Inhalation of Vapor Emissions
	[mg/m3-air]	[mg/kg]	[mg/kg]	[mg/L]	[mg/L]
Benzene	6.57E-03	3.05E+01	2.22E-01	1.27E+00	9.28E-01
Toluene	7.79E-01	8.89E+03 *	5.60E+01 *	1.31E+02 #	9.84E+01 #
Ethylbenzene	1.95E+00	5.65E+03 *	2.57E+02 *	3.56E+01 #	2.45E+02 #
Xylenes (mixed)	1.36E+00	2.23E+04 *	2.30E+02 *	6.49E+02 #	1.93E+02 #
Ethylene Dibromide (EDB)	2.48E-04	5.86E-02	2.27E-01	3.38E-04	6.18E-01
Ethylene Dichloride (EDC)	2.10E-03	2.08E+01	2.36E-01	6.99E-01	7.98E-01
Methyl-tert-butyl-ether(MTBE)	5.45E-01	5.39E+02	6.65E+01	2.05E+01	5.09E+02
Acenaphthene	4.09E-01	3.99E+03	8.87E+04	6.74E+00	2.43E+03
Anthracene	2.04E+00	2.00E+04 *	5.17E+05 *	3.42E+01 #	3.66E+03 #
Benzo(a)anthracene	6.16E-04	5.50E+00 *	2.50E+05 *	1.30E-03	1.18E+02 #
Benzo(a)pyrene	3.13E-05	5.62E-01 *	8.56E+04 *	6.93E-05	1.58E+01 #
Benzo(b)fluoranthene	6.16E-04	5.50E+00 *	6.01E+04 *	6.93E-04	9.34E+00 #
Benzo(k)fluoranthene	6.16E-03	5.50E+01 *	4.34E+07 *	6.93E-03 #	6.64E+03 #
Chrysene	6.16E-02	5.49E+02 *	2.07E+06 *	1.30E-01 #	9.94E+02 #
Dibenzo(a,h)anthracene	6.16E-05	5.50E-01	3.05E+06	3.83E-05	1.51E+02
Fluoranthene	2.73E-01	7.82E+03 *	1.16E+07 *	2.45E+00 #	2.04E+04 #
Fluorene	2.73E-01	2.68E+03 *	3.23E+05 *	6.62E+00 #	4.45E+03 #
Napthalene	5.86E-03	5.90E+02 *	8.30E+01 *	7.74E+00 #	8.79E+00 #
Pyrene	2.04E-01	5.35E+03 *	1.34E+07 *	1.84E+00 #	2.41E+04 #
TPH-GRO	1.13E+01	5.22E+04	2.22E+02	2.36E+02	3.44E+01
TPH-DRO	7.20E+00	3.96E+05	8.35E+03	1.06E+02	2.30E+02
TPH-ORO	NA	3.62E+05	NA	8.70E+01	NA
>C6 - C8 (Aliphatics)	1.03E+01	4.46E+04	9.44E+01	2.17E+02	7.79E+00
>C8 - C10 (Aliphatics)	5.84E-01	4.03E+03	2.05E+01	4.34E+00	2.76E-01
>C10 - C12 (Aliphatics)	5.84E-01	7.04E+03	1.02E+02	4.34E+00	1.84E-01
>C12 - C16 (Aliphatics)	5.84E+00	1.67E+04	4.64E+03	4.34E+00	4.25E-01
>C16 - C35 (Aliphatics)	NA	3.58E+05	NA	8.67E+01	NA
>C8 - C10 (Aromatics)	3.89E-01	3.61E+03	1.07E+02	1.48E+01	2.63E+01
>C10 - C12 (Aromatics)	3.89E-01	4.57E+03	5.78E+02	6.97E+00	7.29E+01
>C12 - C16 (Aromatics)	3.89E-01	5.49E+03	3.03E+03	2.41E+00	1.56E+02
>C16 - C21 (Aromatics)	NA	4.30E+03	NA	8.89E-01	NA
>C21 - C35 (Aromatics)	NA	4.30E+03	NA	3.00E-01	NA
Tertiary-amyl-methyl-ether (TAME)	NA	5.73E+03	NA	NA	NA
Tertiary-butyl- alcohol (TBA)	5.79E-01	8.21E+03	3.89E+02	NA	3.58E+03
Ethyl-tert-butyl-ether (ETBE)	5.79E-01	1.41E+02	3.90E+01	NA	2.01E+02
Diisopropyl ether (DIPE)	1.94E-03	2.33E+01	1.24E-01	NA	4.69E-01
Ethanol	3.69E+00	4.19E+04	1.63E+04	NA	1.72E+05
Methanol	5.04E-01	3.72E+04	3.54E+03	NA	2.60E+04
Arsenic	1.27E-05	1.91E+01	NA	NA	NA
Barium	9.54E-04	4.79E+04	NA	NA	NA
Cadmium	3.03E-05	3.47E+02	NA	NA	NA
Chromium (III)	1.95E-04	1.93E+05	NA	NA	NA
Chromium (VI)	6.58E-07	5.53E+03	NA	NA	NA
Lead	NA	6.60E+02	6.60E+02	NA	NA
Selenium	NA	9.27E+02	NA	NA	NA

Notes:
NA: Not Applicable
*: Calculated RBTL exceeded effective saturated soil concentration. Calculated value is listed.
#: Calculated RBTL exceeded effective water solubility. Calculated value is listed.
Soil concentrations are presented on a dry weight basis.
RBTL: Risk Based Target Level

Table 7-1(c)
Tier 1 Risk Based Target Levels for Construction Worker

Chemicals of Concern	Air	Soil upto Depth of Construction		Groundwater			
	Outdoor	Ingestion, Inhalation (Vapor Emissions and Particulates), and Dermal Contact		Dermal Contact		Outdoor Inhalation of Vapor Emissions	
	[mg/m3-air]	[mg/kg]		[mg/L]		[mg/L]	
Benzene	4.86E-02	2.70E+01		1.09E+01		3.39E+01	
Toluene	3.25E+00	2.73E+03	*	3.63E+02	#	2.11E+03	#
Ethylbenzene	8.11E+00	6.25E+03	*	9.89E+01	#	5.35E+03	#
Xylenes (mixed)	5.68E+00	7.26E+03	*	1.80E+03	#	4.13E+03	#
Ethylene Dibromide (EDB)	1.62E-03	3.89E+00		2.35E-02		6.95E+00	
Ethylene Dichloride (EDC)	3.98E-02	4.22E+01		4.86E+01		2.32E+01	
Methyl-tert-butyl-ether(MTBE)	2.43E+01	2.31E+04		1.43E+03		5.81E+04	#
Acenaphthene	1.70E+00	9.86E+03		1.87E+01		1.75E+04	#
Anthracene	8.52E+00	4.97E+04	*	9.51E+01	#	3.42E+04	#
Benzo(a)anthracene	6.41E-02	3.81E+02	*	8.99E-02	#	1.84E+04	#
Benzo(a)pyrene	3.26E-03	3.89E+01	*	4.81E-03	#	2.45E+03	#
Benzo(b)fluoranthene	6.41E-02	3.80E+02	*	4.81E-02	#	1.58E+03	#
Benzo(k)fluoranthene	6.41E-01	3.82E+03	*	4.81E-01	#	1.03E+06	#
Chrysene	6.41E+00	3.78E+04	*	8.99E+00	#	1.66E+05	#
Dibenzo(a,h)anthracene	6.41E-03	3.82E+01		2.66E-03		2.34E+04	#
Fluoranthene	1.14E+00	2.12E+04	*	6.80E+00	#	1.29E+05	#
Fluorene	1.14E+00	7.07E+03	*	1.84E+01	#	2.92E+04	#
Napthalene	2.44E-02	2.70E+02	*	2.15E+01	#	8.78E+01	#
Pyrene	8.52E-01	1.46E+04	*	5.10E+00	#	1.51E+05	#
TPH-GRO	4.71E+01	1.67E+04		6.55E+02		8.00E+02	
TPH-DRO	3.00E+01	1.05E+06		2.93E+02		3.73E+03	
TPH-ORO	NA	1.01E+06		2.42E+02		NA	
>C6 - C8 (Aliphatics)	4.30E+01	1.30E+04		6.02E+02		1.94E+02	#
>C8 - C10 (Aliphatics)	2.43E+00	1.40E+03		1.20E+01		6.86E+00	#
>C10 - C12 (Aliphatics)	2.43E+00	3.03E+03		1.20E+01		4.58E+00	#
>C12 - C16 (Aliphatics)	2.43E+01	2.88E+04		1.20E+01		1.06E+01	#
>C16 - C35 (Aliphatics)	NA	9.94E+05		2.41E+02		NA	
>C8 - C10 (Aromatics)	1.62E+00	2.31E+03		4.12E+01		5.99E+02	#
>C10 - C12 (Aromatics)	1.62E+00	4.50E+03		1.93E+01		1.40E+03	#
>C12 - C16 (Aromatics)	1.62E+00	7.79E+03		6.69E+00		2.32E+03	#
>C16 - C21 (Aromatics)	NA	1.19E+04		2.47E+00		NA	
>C21 - C35 (Aromatics)	NA	1.19E+04		8.33E-01		NA	
Tertiary-amyl-methyl-ether (TAME)	NA	1.59E+04		NA		NA	
Tertiary-butyl- alcohol (TBA)	2.41E+00	5.34E+03		NA		2.51E+04	
Ethyl-tert-butyl-ether (ETBE)	2.41E+00	3.32E+02		NA		3.52E+03	
Diisopropyl ether (DIPE)	8.09E-03	6.49E+00		NA		9.19E+00	
Ethanol	1.54E+01	5.76E+04		NA		1.08E+06	#
Methanol	2.10E+00	1.65E+04		NA		1.63E+05	
Arsenic	1.33E-03	8.54E+02		NA		NA	
Barium	3.98E-03	1.31E+05		NA		NA	
Cadmium	3.16E-03	9.65E+02		NA		NA	
Chromium (III)	8.12E-04	4.20E+05		NA		NA	
Chromium (VI)	6.25E-05	1.39E+04		NA		NA	
Lead	NA	NA		NA		NA	
Selenium	NA	2.57E+03		NA		NA	

Notes:
NA: Not Applicable
*: Calculated RBTL exceeded effective saturated soil concentration. Calculated value is listed.
#: Calculated RBTL exceeded effective water solubility. Calculated value is listed.
Soil concentrations are presented on a dry weight basis.
RBTL: Risk Based Target Level

Table 7-1(d)
Soil Concentration Protective of Groundwater for Different Distances to POE
Distance to Groundwater <20 ft

Chemical	Distance to POE (ft)															
	0		25		50		75		100		150		200		250	
Benzene	6.16E-02		6.21E-02		8.06E-02		1.25E-01		1.91E-01		3.84E-01		6.54E-01		1.00E+00	
Toluene	3.09E+01	#	3.11E+01	#	4.03E+01	#	6.27E+01	#	9.58E+01	#	1.92E+02	#	3.28E+02	#	5.02E+02	#
Ethylbenzene	4.06E+01	#	4.10E+01	#	5.31E+01	#	8.25E+01	#	1.26E+02	#	2.53E+02	#	4.31E+02	#	6.61E+02	#
Xylenes (mixed)	6.45E+02	#	6.51E+02	#	8.43E+02	#	1.31E+03	#	2.00E+03	#	4.02E+03	#	6.85E+03	#	1.05E+04	#
Ethylene Dibromide (EDB)	5.31E-04		5.35E-04		6.94E-04		1.08E-03		1.65E-03		3.30E-03		5.63E-03		8.63E-03	
Ethylene Dichloride (EDC)	1.30E-02		1.31E-02		1.69E-02		2.63E-02		4.02E-02		8.07E-02		1.38E-01		2.11E-01	
Methyl-tert-butyl-ether(MTBE)	6.21E-01		6.27E-01		8.13E-01		1.26E+00		1.93E+00		3.87E+00		6.60E+00		1.01E+01	
Acenaphthene	7.70E+01		7.76E+01		1.01E+02		1.56E+02		2.39E+02		4.79E+02		8.17E+02		1.25E+03	
Anthracene	1.60E+03	#	1.61E+03	#	2.09E+03	#	3.25E+03	#	4.97E+03	#	9.97E+03	#	1.70E+04	#	2.60E+04	#
Benzo(a)anthracene	5.46E+01	#	5.51E+01	#	7.14E+01	#	1.11E+02	#	1.69E+02	#	3.40E+02	#	5.79E+02	#	8.88E+02	#
Benzo(a)pyrene	3.04E+01	#	3.06E+01	#	3.97E+01	#	6.17E+01	#	9.43E+01	#	1.89E+02	#	3.22E+02	#	4.94E+02	#
Benzo(b)fluoranthene	1.69E+02	#	1.70E+02	#	2.21E+02	#	3.43E+02	#	5.24E+02	#	1.05E+03	#	1.79E+03	#	2.74E+03	#
Benzo(k)fluoranthene	1.69E+03	#	1.70E+03	#	2.21E+03	#	3.43E+03	#	5.24E+03	#	1.05E+04	#	1.79E+04	#	2.74E+04	#
Chrysene	5.46E+03	#	5.51E+03	#	7.14E+03	#	1.11E+04	#	1.69E+04	#	3.40E+04	#	5.79E+04	#	8.88E+04	#
Dibenzo(a,h)anthracene	5.21E+01		5.26E+01		6.81E+01		1.06E+02		1.62E+02		3.24E+02		5.53E+02		8.47E+02	
Fluoranthene	9.97E+03	#	1.01E+04	#	1.30E+04	#	2.02E+04	#	3.10E+04	#	6.21E+04	#	1.06E+05	#	1.62E+05	#
Fluorene	9.99E+01	#	1.01E+02	#	1.31E+02	#	2.03E+02	#	3.10E+02	#	6.22E+02	#	1.06E+03	#	1.62E+03	#
Napthalene	3.93E-01	#	3.96E-01	#	5.14E-01	#	7.98E-01	#	1.22E+00	#	2.45E+00	#	4.17E+00	#	6.39E+00	#
Pyrene	7.34E+03	#	7.40E+03	#	9.59E+03	#	1.49E+04	#	2.28E+04	#	4.57E+04	#	7.79E+04	#	1.19E+05	#
TPH-GRO	2.36E+03		2.38E+03		3.09E+03		4.79E+03		7.33E+03		1.47E+04		2.51E+04		3.84E+04	
TPH-DRO	2.94E+09	#	2.97E+09	#	3.84E+09	#	5.97E+09	#	9.13E+09	#	1.83E+10	#	3.12E+10	#	4.78E+10	#
TPH-ORO	2.94E+09	#	2.97E+09	#	3.84E+09	#	5.97E+09	#	9.13E+09	#	1.83E+10	#	3.12E+10	#	4.78E+10	#
>C6 - C8 (Aliphatics)	1.80E+03		1.81E+03		2.35E+03		3.65E+03		5.58E+03		1.12E+04		1.91E+04		2.92E+04	
>C8 - C10 (Aliphatics)	5.46E+02		5.51E+02		7.14E+02		1.11E+03		1.70E+03		3.40E+03		5.80E+03		8.88E+03	
>C10 - C12 (Aliphatics)	4.07E+03		4.11E+03		5.32E+03		8.27E+03		1.26E+04		2.53E+04		4.32E+04		6.62E+04	
>C12 - C16 (Aliphatics)	1.17E+06	#	1.18E+06	#	1.53E+06	#	2.38E+06	#	3.64E+06	#	7.29E+06	#	1.24E+07	#	1.90E+07	#
>C16 - C35 (Aliphatics)	2.94E+09	#	2.97E+09	#	3.84E+09	#	5.97E+09	#	9.13E+09	#	1.83E+10	#	3.12E+10	#	4.78E+10	#
>C8 - C10 (Aromatics)	1.53E+01		1.54E+01		2.00E+01		3.10E+01		4.74E+01		9.50E+01		1.62E+02		2.48E+02	
>C10 - C12 (Aromatics)	2.40E+01		2.42E+01		3.14E+01		4.87E+01		7.45E+01		1.49E+02		2.55E+02		3.90E+02	
>C12 - C16 (Aromatics)	4.76E+01		4.80E+01		6.23E+01		9.67E+01		1.48E+02		2.97E+02		5.06E+02		7.75E+02	
>C16 - C21 (Aromatics)	4.08E+02		4.12E+02		5.34E+02		8.29E+02		1.27E+03		2.54E+03		4.33E+03		6.64E+03	
>C21 - C35 (Aromatics)	8.79E+03		8.87E+03		1.15E+04		1.79E+04		2.73E+04		5.47E+04		9.33E+04		1.43E+05	
Tertiary-amyl-methyl-ether (TAME)	2.14E+00		2.16E+00		2.80E+00		4.35E+00		6.66E+00		1.33E+01		2.28E+01		3.49E+01	
Tertiary-butyl- alcohol (TBA)	3.26E-01		3.29E-01		4.26E-01		6.62E-01		1.01E+00		2.03E+00		3.46E+00		5.30E+00	
Ethyl-tert-butyl-ether (ETBE)	4.68E-02		4.72E-02		6.12E-02		9.51E-02		1.45E-01		2.92E-01		4.97E-01		7.61E-01	
Diisopropyl ether (DIPE)	5.63E-03		5.68E-03		7.37E-03		1.14E-02		1.75E-02		3.51E-02		5.98E-02		9.16E-02	
Ethanol	1.54E+00		1.56E+00		2.02E+00		3.13E+00		4.79E+00		9.60E+00		1.64E+01		2.51E+01	
Methanol	4.18E-01		4.22E-01		5.47E-01		8.50E-01		1.30E+00		2.61E+00		4.44E+00		6.81E+00	
Arsenic	NA		NA		NA		NA		NA		NA		NA		NA	
Barium	NA		NA		NA		NA		NA		NA		NA		NA	
Cadmium	NA		NA		NA		NA		NA		NA		NA		NA	
Chromium	NA		NA		NA		NA		NA		NA		NA		NA	
Lead	NA		NA		NA		NA		NA		NA		NA		NA	
Selenium	NA		NA		NA		NA		NA		NA		NA		NA	

Notes:
NA : Not Available
Target levels are based on distance to groundwater < 20 ft for which default vadose zone DAF is 1.
All concentrations in mg/kg.
: Concentrations greater than effective soil saturation concentration.

Table 7-1(e)
Soil Concentration Protective of Groundwater for Different Distances to POE
Distance to Groundwater between 20 and 50 ft

Chemical	Distance to POE (ft)															
	0		25		50		75		100		150		200		250	
Benzene	1.23E-01		1.24E-01		1.61E-01		2.50E-01		3.83E-01		7.67E-01		1.31E+00		2.00E+00	
Toluene	6.17E+01	#	6.22E+01	#	8.07E+01	#	1.25E+02	#	1.92E+02	#	3.84E+02	#	6.55E+02	#	1.00E+03	#
Ethylbenzene	8.12E+01	#	8.20E+01	#	1.06E+02	#	1.65E+02	#	2.52E+02	#	5.06E+02	#	8.63E+02	#	1.32E+03	#
Xylenes (mixed)	1.29E+03	#	1.30E+03	#	1.69E+03	#	2.62E+03	#	4.01E+03	#	8.03E+03	#	1.37E+04	#	2.10E+04	#
Ethylene Dibromide (EDB)	1.06E-03		1.07E-03		1.39E-03		2.16E-03		3.30E-03		6.61E-03		1.13E-02		1.73E-02	
Ethylene Dichloride (EDC)	2.59E-02		2.61E-02		3.39E-02		5.26E-02		8.05E-02		1.61E-01		2.75E-01		4.22E-01	
Methyl-tert-butyl-ether(MTBE)	1.24E+00		1.25E+00		1.63E+00		2.52E+00		3.86E+00		7.74E+00		1.32E+01		2.02E+01	
Acenaphthene	1.54E+02		1.55E+02		2.01E+02		3.13E+02		4.78E+02		9.58E+02		1.63E+03		2.50E+03	
Anthracene	3.20E+03	#	3.23E+03	#	4.19E+03	#	6.50E+03	#	9.94E+03	#	1.99E+04	#	3.40E+04	#	5.21E+04	#
Benzo(a)anthracene	1.09E+02	#	1.10E+02	#	1.43E+02	#	2.22E+02	#	3.39E+02	#	6.80E+02	#	1.16E+03	#	1.78E+03	#
Benzo(a)pyrene	6.07E+01	#	6.13E+01	#	7.94E+01	#	1.23E+02	#	1.89E+02	#	3.78E+02	#	6.45E+02	#	9.88E+02	#
Benzo(b)fluoranthene	3.37E+02	#	3.40E+02	#	4.41E+02	#	6.85E+02	#	1.05E+03	#	2.10E+03	#	3.58E+03	#	5.49E+03	#
Benzo(k)fluoranthene	3.37E+03	#	3.40E+03	#	4.41E+03	#	6.85E+03	#	1.05E+04	#	2.10E+04	#	3.58E+04	#	5.49E+04	#
Chrysene	1.09E+04	#	1.10E+04	#	1.43E+04	#	2.22E+04	#	3.39E+04	#	6.80E+04	#	1.16E+05	#	1.78E+05	#
Dibenzo(a,h)anthracene	1.04E+02		1.05E+02		1.36E+02		2.12E+02		3.24E+02		6.49E+02		1.11E+03		1.69E+03	
Fluoranthene	1.99E+04	#	2.01E+04	#	2.61E+04	#	4.05E+04	#	6.19E+04	#	1.24E+05	#	2.12E+05	#	3.24E+05	#
Fluorene	2.00E+02	#	2.02E+02	#	2.61E+02	#	4.06E+02	#	6.20E+02	#	1.24E+03	#	2.12E+03	#	3.25E+03	#
Napthalene	7.85E-01	#	7.92E-01	#	1.03E+00	#	1.60E+00	#	2.44E+00	#	4.89E+00	#	8.34E+00	#	1.28E+01	#
Pyrene	1.47E+04	#	1.48E+04	#	1.92E+04	#	2.98E+04	#	4.56E+04	#	9.14E+04	#	1.56E+05	#	2.39E+05	#
TPH-GRO	4.72E+03		4.76E+03		6.17E+03		9.59E+03		1.47E+04		2.94E+04		5.01E+04		7.68E+04	
TPH-DRO	5.88E+09	#	5.93E+09	#	7.69E+09	#	1.19E+10	#	1.83E+10	#	3.66E+10	#	6.24E+10	#	9.56E+10	#
TPH-ORO	5.88E+09	#	5.93E+09	#	7.69E+09	#	1.19E+10	#	1.83E+10	#	3.66E+10	#	6.24E+10	#	9.56E+10	#
>C6 - C8 (Aliphatics)	3.60E+03		3.63E+03		4.70E+03		7.30E+03		1.12E+04		2.24E+04		3.82E+04		5.85E+04	
>C8 - C10 (Aliphatics)	1.09E+03		1.10E+03		1.43E+03		2.22E+03		3.39E+03		6.80E+03		1.16E+04		1.78E+04	
>C10 - C12 (Aliphatics)	8.14E+03		8.21E+03		1.06E+04		1.65E+04		2.53E+04		5.07E+04		8.64E+04		1.32E+05	
>C12 - C16 (Aliphatics)	2.34E+06	#	2.36E+06	#	3.06E+06	#	4.76E+06	#	7.27E+06	#	1.46E+07	#	2.49E+07	#	3.81E+07	#
>C16 - C35 (Aliphatics)	5.88E+09	#	5.93E+09	#	7.69E+09	#	1.19E+10	#	1.83E+10	#	3.66E+10	#	6.24E+10	#	9.56E+10	#
>C8 - C10 (Aromatics)	3.05E+01		3.08E+01		3.99E+01		6.20E+01		9.48E+01		1.90E+02		3.24E+02		4.96E+02	
>C10 - C12 (Aromatics)	4.80E+01		4.84E+01		6.27E+01		9.74E+01		1.49E+02		2.99E+02		5.09E+02		7.80E+02	
>C12 - C16 (Aromatics)	9.52E+01		9.61E+01		1.25E+02		1.93E+02		2.96E+02		5.93E+02		1.01E+03		1.55E+03	
>C16 - C21 (Aromatics)	8.16E+02		8.23E+02		1.07E+03		1.66E+03		2.53E+03		5.08E+03		8.67E+03		1.33E+04	
>C21 - C35 (Aromatics)	1.76E+04		1.77E+04		2.30E+04		3.57E+04		5.46E+04		1.09E+05		1.87E+05		2.86E+05	
Tertiary-amyl-methyl-ether (TAME)	4.29E+00		4.32E+00		5.61E+00		8.71E+00		1.33E+01		2.67E+01		4.55E+01		6.97E+01	
Tertiary-butyl- alcohol (TBA)	6.52E-01		6.58E-01		8.53E-01		1.32E+00		2.03E+00		4.06E+00		6.92E+00		1.06E+01	
Ethyl-tert-butyl-ether (ETBE)	9.36E-02		9.45E-02		1.22E-01		1.90E-01		2.91E-01		5.83E-01		9.94E-01		1.52E+00	
Diisopropyl ether (DIPE)	1.13E-02		1.14E-02		1.47E-02		2.29E-02		3.50E-02		7.01E-02		1.20E-01		1.83E-01	
Ethanol	3.08E+00		3.11E+00		4.03E+00		6.26E+00		9.58E+00		1.92E+01		3.27E+01		5.02E+01	
Methanol	8.37E-01		8.44E-01		1.09E+00		1.70E+00		2.60E+00		5.21E+00		8.89E+00		1.36E+01	
Arsenic	NA		NA		NA		NA		NA		NA		NA		NA	
Barium	NA		NA		NA		NA		NA		NA		NA		NA	
Cadmium	NA		NA		NA		NA		NA		NA		NA		NA	
Chromium	NA		NA		NA		NA		NA		NA		NA		NA	
Lead	NA		NA		NA		NA		NA		NA		NA		NA	
Selenium	NA		NA		NA		NA		NA		NA		NA		NA	

Notes:
NA : Not Available
Target levels are based on distance to groundwater < 20 ft for which default vadose zone DAF is 1.
All concentrations in mg/kg.
: Concentrations greater than effective soil saturation concentration.

Table 7-1(f)
Soil Concentration Protective of Groundwater for Different Distances to POE
Distance to Groundwater >50 ft

Chemical	Distance to POE (ft)															
	0		25		50		75		100		150		200		250	
Benzene	1.85E-01		1.86E-01		2.42E-01		3.75E-01		5.74E-01		1.15E+00		1.96E+00		3.01E+00	
Toluene	9.26E+01	#	9.34E+01	#	1.21E+02	#	1.88E+02	#	2.87E+02	#	5.76E+02	#	9.83E+02	#	1.51E+03	#
Ethylbenzene	1.22E+02	#	1.23E+02	#	1.59E+02	#	2.48E+02	#	3.79E+02	#	7.59E+02	#	1.29E+03	#	1.98E+03	#
Xylenes (mixed)	1.93E+03	#	1.95E+03	#	2.53E+03	#	3.93E+03	#	6.01E+03	#	1.20E+04	#	2.05E+04	#	3.15E+04	#
Ethylene Dibromide (EDB)	1.59E-03		1.61E-03		2.08E-03		3.23E-03		4.94E-03		9.91E-03		1.69E-02		2.59E-02	
Ethylene Dichloride (EDC)	3.89E-02		3.92E-02		5.08E-02		7.90E-02		1.21E-01		2.42E-01		4.13E-01		6.32E-01	
Methyl-tert-butyl-ether(MTBE)	1.86E+00		1.88E+00		2.44E+00		3.79E+00		5.79E+00		1.16E+01		1.98E+01		3.03E+01	
Acenaphthene	2.31E+02		2.33E+02		3.02E+02		4.69E+02		7.17E+02		1.44E+03		2.45E+03		3.76E+03	
Anthracene	4.80E+03	#	4.84E+03	#	6.28E+03	#	9.75E+03	#	1.49E+04	#	2.99E+04	#	5.10E+04	#	7.81E+04	#
Benzo(a)anthracene	1.64E+02	#	1.65E+02	#	2.14E+02	#	3.33E+02	#	5.08E+02	#	1.02E+03	#	1.74E+03	#	2.66E+03	#
Benzo(a)pyrene	9.11E+01	#	9.19E+01	#	1.19E+02	#	1.85E+02	#	2.83E+02	#	5.67E+02	#	9.67E+02	#	1.48E+03	#
Benzo(b)fluoranthene	5.06E+02	#	5.10E+02	#	6.62E+02	#	1.03E+03	#	1.57E+03	#	3.15E+03	#	5.37E+03	#	8.23E+03	#
Benzo(k)fluoranthene	5.06E+03	#	5.10E+03	#	6.62E+03	#	1.03E+04	#	1.57E+04	#	3.15E+04	#	5.37E+04	#	8.23E+04	#
Chrysene	1.64E+04	#	1.65E+04	#	2.14E+04	#	3.33E+04	#	5.08E+04	#	1.02E+05	#	1.74E+05	#	2.66E+05	#
Dibenzo(a,h)anthracene	1.56E+02		1.58E+02		2.04E+02		3.17E+02		4.85E+02		9.73E+02		1.66E+03		2.54E+03	
Fluoranthene	2.99E+04	#	3.02E+04	#	3.91E+04	#	6.07E+04	#	9.29E+04	#	1.86E+05	#	3.17E+05	#	4.86E+05	#
Fluorene	3.00E+02	#	3.02E+02	#	3.92E+02	#	6.09E+02	#	9.31E+02	#	1.87E+03	#	3.18E+03	#	4.87E+03	#
Napthalene	1.18E+00	#	1.19E+00	#	1.54E+00	#	2.39E+00	#	3.66E+00	#	7.34E+00	#	1.25E+01	#	1.92E+01	#
Pyrene	2.20E+04	#	2.22E+04	#	2.88E+04	#	4.47E+04	#	6.84E+04	#	1.37E+05	#	2.34E+05	#	3.58E+05	#
TPH-GRO	7.08E+03		7.14E+03		9.26E+03		1.44E+04		2.20E+04		4.41E+04		7.52E+04		1.15E+05	
TPH-DRO	8.82E+09	#	8.90E+09	#	1.15E+10	#	1.79E+10	#	2.74E+10	#	5.49E+10	#	9.36E+10	#	1.43E+11	#
TPH-ORO	8.82E+09	#	8.90E+09	#	1.15E+10	#	1.79E+10	#	2.74E+10	#	5.49E+10	#	9.36E+10	#	1.43E+11	#
>C6 - C8 (Aliphatics)	5.39E+03		5.44E+03		7.05E+03		1.10E+04		1.68E+04		3.36E+04		5.73E+04		8.77E+04	
>C8 - C10 (Aliphatics)	1.64E+03		1.65E+03		2.14E+03		3.33E+03		5.09E+03		1.02E+04		1.74E+04		2.67E+04	
>C10 - C12 (Aliphatics)	1.22E+04		1.23E+04		1.60E+04		2.48E+04		3.79E+04		7.60E+04		1.30E+05		1.99E+05	
>C12 - C16 (Aliphatics)	3.51E+06	#	3.54E+06	#	4.59E+06	#	7.13E+06	#	1.09E+07	#	2.19E+07	#	3.73E+07	#	5.71E+07	#
>C16 - C35 (Aliphatics)	8.82E+09	#	8.90E+09	#	1.15E+10	#	1.79E+10	#	2.74E+10	#	5.49E+10	#	9.36E+10	#	1.43E+11	#
>C8 - C10 (Aromatics)	4.58E+01		4.62E+01		5.99E+01		9.30E+01		1.42E+02		2.85E+02		4.86E+02		7.45E+02	
>C10 - C12 (Aromatics)	7.19E+01		7.26E+01		9.41E+01		1.46E+02		2.23E+02		4.48E+02		7.64E+02		1.17E+03	
>C12 - C16 (Aromatics)	1.43E+02		1.44E+02		1.87E+02		2.90E+02		4.44E+02		8.90E+02		1.52E+03		2.32E+03	
>C16 - C21 (Aromatics)	1.22E+03		1.24E+03		1.60E+03		2.49E+03		3.80E+03		7.62E+03		1.30E+04		1.99E+04	
>C21 - C35 (Aromatics)	2.64E+04		2.66E+04		3.45E+04		5.36E+04		8.19E+04		1.64E+05		2.80E+05		4.29E+05	
Tertiary-amyl-methyl-ether (TAME)	6.43E+00		6.49E+00		8.41E+00		1.31E+01		2.00E+01		4.00E+01		6.83E+01		1.05E+02	
Tertiary-butyl- alcohol (TBA)	9.78E-01		9.87E-01		1.28E+00		1.99E+00		3.04E+00		6.09E+00		1.04E+01		1.59E+01	
Ethyl-tert-butyl-ether (ETBE)	1.40E-01		1.42E-01		1.84E-01		2.85E-01		4.36E-01		8.75E-01		1.49E+00		2.28E+00	
Diisopropyl ether (DIPE)	1.69E-02		1.70E-02		2.21E-02		3.43E-02		5.25E-02		1.05E-01		1.79E-01		2.75E-01	
Ethanol	4.63E+00		4.67E+00		6.05E+00		9.39E+00		1.44E+01		2.88E+01		4.91E+01		7.52E+01	
Methanol	1.26E+00		1.27E+00		1.64E+00		2.55E+00		3.90E+00		7.82E+00		1.33E+01		2.04E+01	
Arsenic	NA		NA		NA		NA		NA		NA		NA		NA	
Barium	NA		NA		NA		NA		NA		NA		NA		NA	
Cadmium	NA		NA		NA		NA		NA		NA		NA		NA	
Chromium	NA		NA		NA		NA		NA		NA		NA		NA	
Lead	NA		NA		NA		NA		NA		NA		NA		NA	
Selenium	NA		NA		NA		NA		NA		NA		NA		NA	

Notes:
NA : Not Available
Target levels are based on distance to groundwater < 20 ft for which default vadose zone DAF is 1.
All concentrations in mg/kg.
: Concentrations greater than effective soil saturation concentration.